

## Two new species of *Aegla* Leach (Crustacea: Decapoda: Anomura: Aegliidae) from southern Chile

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*Abstract.*—Two new species of the genus *Aegla* Leach from southern Chile are described. *Aegla cholchol*, new species, a medium to large sized spinulated aeglid, has the River Chol-Chol (Cautín Province) as its type locality. It is probably more related to *A. rostrata*, from subandean lakes at the Toltén and Valdivia River basins than to *A. bahamondei*, from the Tucapel River Basin on the western slope of the Nahuelbuta Coastal Cordillera. The other, *A. hueicollensis*, new species, a small to medium sized non-spinulated aeglid, has the River Pichihueicolla (Valdivia Province), on the western slope of the Pelada Coastal Cordillera, as its type-locality. *A. hueicollensis* is similar to *A. abtao* with which it shares more morphological attributes than with other non-spinulated aeglids of the same geographic region (i.e., *A. alacalufi*, *A. manni*, and *A. concepcionensis*).

Continental Chile is a long and narrow strip of land extending from Arica to Cape Horn, characterized by a series of climatic and biogeographical regions (see Di Castri et al. 1968). Three main topographical features, namely, the Andes Cordillera on the east, the Coastal Cordillera on the west, and the Central Valley between both ranges dominate the landscape from north to south (Börgel 1983). The central southern part of Chile, between the cities of Concepción (36°55'S) and Puerto Montt (41°28'S), harbors the highest diversity of aeglids and parastacids in the country (Bahamonde & López 1963). This diversity appears associated to the many rivers and lakes that constitute the drainage system of this area.

Aeglids are distributed along a stretch of about 2000 kilometers, from the Choapa River (31°38'S) in the north down to Madre de Dios Island (50°02'S) in the south (Bahamonde & López 1963, Jara & López 1981). At least ten species and two subspecies of *Aegla* (*A. concepcionensis*

Schmitt, 1942a, *A. expansa* Jara, 1992, *A. pewenchaе* Jara, 1994, *A. bahamondei* Jara, 1982, *A. spectabilis* Jara, 1986, *A. rostrata* Jara, 1977, *A. abtao* Schmitt, 1942a, *A. d. denticulata* Nicolet, 1845, *A. d. lacustris* Jara, 1989, *A. manni* Jara, 1980, *A. araucaniensis* Jara, 1980, and *A. alacalufi* Jara & López, 1981) have been described for the area between Concepción and Puerto Montt, several associated to the Coastal Cordillera. In fact, three, *A. concepcionensis*, *A. bahamondei*, and *A. manni*, are restricted to small basins on its western slope.

In this paper two new species of *Aegla*, both from localities in the Chilean Coastal Cordillera between Concepción and Puerto Montt, are described.

Specimens are deposited in the Crustacean Collection of the Instituto de Zoología, Universidad Austral de Chile (IZUA C), Valdivia, Chile. The size of the specimens was recorded as carapace length (CL), i.e., distance between rostral apex and posterior margin of cephalothorax.

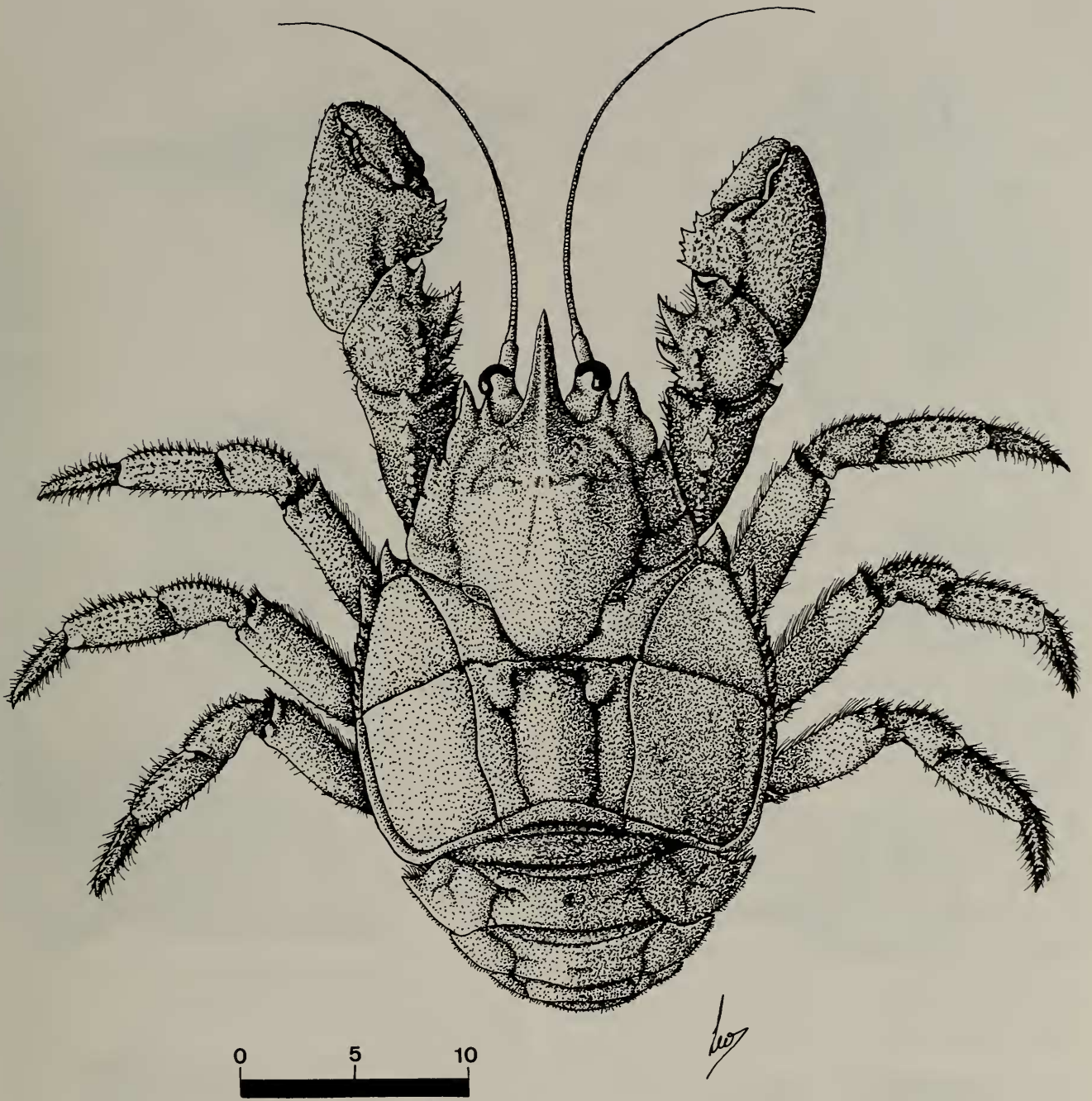


Fig. 1. *Aegla cholchol*, new species, male allotype, Chol-Chol River, IZUA C-328-B, dorsal view.

*Aegla cholchol*, new species  
Figs. 1, 2a-i

*Aegla bahamondei*.—Jara, 1982:232 (in part), Fig. 1 (see Remarks).

*Type locality*.—Chol-Chol River, 100 m downriver from bridge in the town of Chol-Chol, 38°36'40"S, 72°51'05"W, 29 km NW of Temuco, Province of Cautín, Chile.

*Type material*.—Holotype: female (24.5 mm CL), C. G. Jara coll., 22 Dec 1982, IZUA C-328-B. Allotype: male (22.4 mm CL). Paratypes: 9 females (17.5–30.3 mm

LC), 6 males (14.9–27.2 mm LC), same data as holotype.

*Other material*.—3 females (21.5–23.5 mm LC), Quepe River, 38°51'40"S, 72°37'02"W, C. A. Viviani coll., 24 Feb 1969, IZUA C-008-B. 3 males (24.3–26.1 mm LC), 2 females (23.8–25.6 mm LC), Quepe River at Boroa, 39°49'06"S, 72°53'02"W, C. G. Jara coll., 21 Dec 1982, IZUA C-297-B. 7 females (18.1–23.4 mm LC), Traiguén River, 38°14'45"S, 72°39'40"W, C. G. Jara & R. Navarro coll., 22 Dec 1982, IZUA C-316. 3 males (26.9–

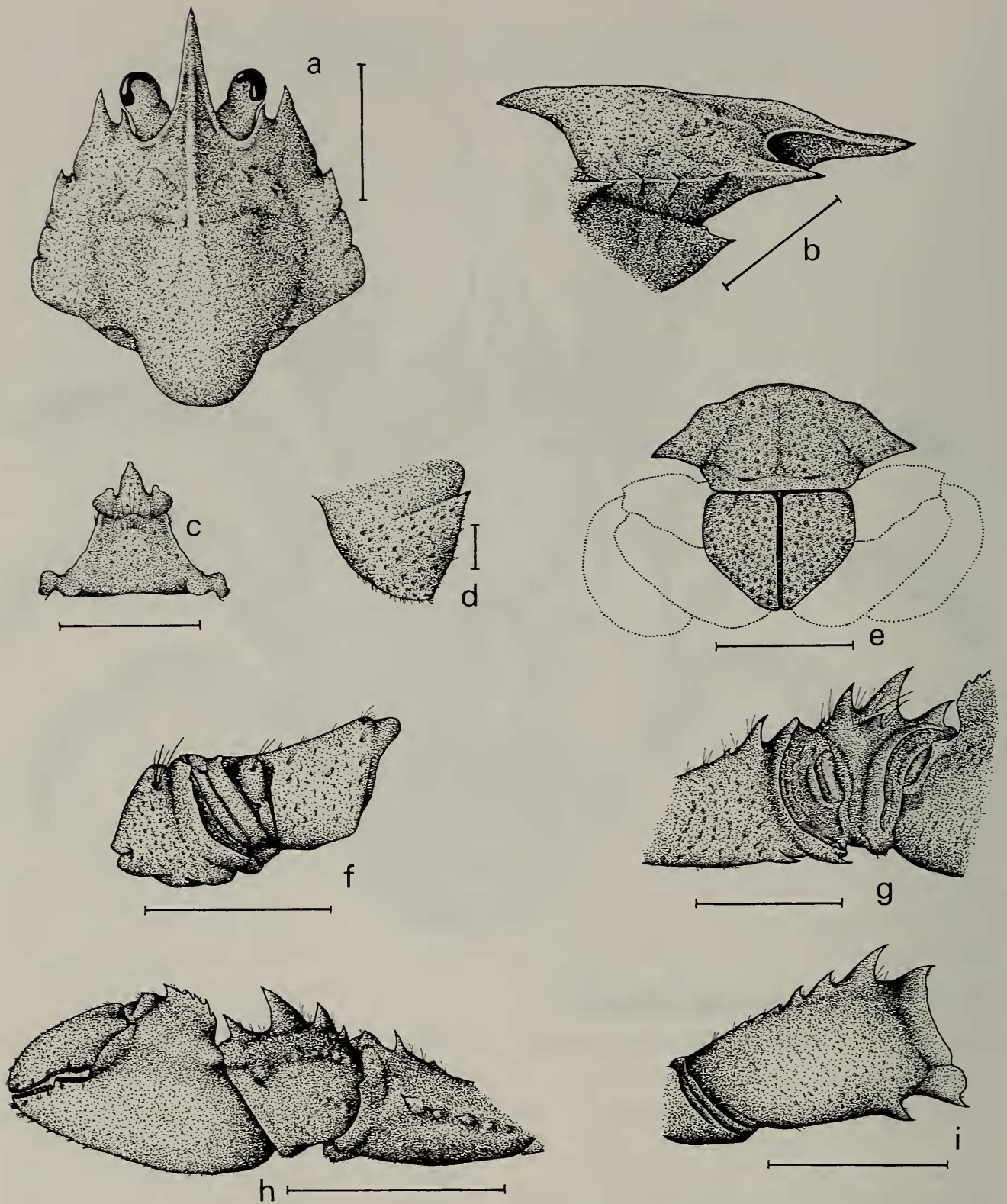


Fig. 2. *Aegla cholchol*, new species, male allotype, Chol-Chol River, IZUA C-328-B; a, anterior part of cephalothorax, dorsal view; b, anterior part of cephalothorax, lateral view; c, third and fourth sterna; d, second abdominal epimeron; e, telson plate; f, ischium of left cheliped, ventral view; g, carpus of left cheliped, ventral view; h, left cheliped, dorsal view; i, merus of cheliped, lateral view. Scales: d = 1 mm; a, b, c, e, f, g, i = 5 mm; h = 10 mm.

18.9 mm LC), 5 females (26.4–15.5 mm LC), Colpí River near Galvarino, 38°19'52"S, 72°47'10"W, C. G. Jara & R. Navarro coll., 22 Dec 1982, IZUA C-317-B. 2 males (19.3–29.3 mm LC), 6 females (23.6–26.0 mm LC), Quepe River, 38°51'40"S, 72°37'02"W, C. G. Jara & R. Navarro coll., 21 Dec 1982, IZUA C-320-A. 8 males (13.6–30.8 mm LC), 9 females (14.3–21.8 mm LC), Lumaco River at Lumaco, 38°09'46"S, 72°54'21"W, C. G. Jara & R. Navarro coll., 22 Dec 1982, IZUA C-321. 5 males (15.8–25.5 mm LC), 9 females (17.3–24.1 mm LC), Cautín River, Temuco, 38°44'30"S, 72°35'00"W, C. G. Jara & R. Navarro coll., 23 Dec 1982, IZUA C-322-B. 8 males (11.7–21.9 mm LC), 8 females (17.8–24.7 mm LC), Chol-Chol River near Galvarino, 38°36'40"S, 72°51'05"W, C. G. Jara & R. Navarro coll., 22 Dec 1982, IZUA C-324-C. 12 males (12.4–27.3 mm LC), 9 females (12.5–21.2 mm LC), Lumaco River at Pellahuén, 38°25'40"S, 72°56'00"W, C. G. Jara & R. Navarro coll., 22 Dec 1982, IZUA C-326-A. 1 juvenile (5.6 mm LC), Pichicautín River near Lumaco, 38°09'25"S, 72°54'15"W, T. Gonser coll., 16 Jan 1983, IZUA C-424.

*Diagnosis.*—Carapace slightly longer than wide, sparsely setose, moderately expanded at branchial level. Rostrum long, subtriangular, acute, styliform at distal half. Orbital spine prominent; extraorbital sinus wide, U-shaped. Anterolateral angle of first hepatic lobe spiniform. Anterior branchial margin subdenticulated; posterior finely serrated, dorsally upturned. Anterolateral angle of second abdominal epimeron spiniform. Fourth thoracic sternum with blunt medial tubercle, occasionally with 1 or 2 scales on frontal border. Telson divided. Adult males markedly heterochelous; females weakly so. Chelae robust; propodus inflated though dorso-ventrally flattened; dactylar lobe blunt; palmar crest subrectangular or arcuate, expanded, dentated; palmar lobe low, blunt, with scales only on frontal edge; medial scale largest; carpal

lobe with prominent conical acute spine. Middorsal carpal ridge tubercles blunt.

*Description.*—Carapace slightly longer than wide, somewhat setose especially on branchiostegal and pterygostomial areas. Abdominal terga and middorsal line of merus of second to fourth pereopods also setose. Precervical portion narrower than postcervical; apex of acute pyramidal branchial lobe separated from margin of third hepatic lobe by wide notch. Rostrum long, acute, narrow, styliform, slightly expanded at its proximal  $\frac{4}{5}$ th but conical and somewhat flattened on distal  $\frac{1}{5}$ th, gently recurved. Rostral tip with acute scale. Rostral borders scarcely marginated, bearing minute scales along  $\frac{4}{5}$ th of rostrum length, naked distally. Rostral carina prominent and scaly on proximal half of rostrum length, absent on distal half; scales small, button-like, in 2 subparallel rows. Epigastric prominences forming low, smooth, arcuate ridge, broadest just behind deepest point of orbital sinus. Protogastric prominences forming low tuberculiform area bearing short oblique row of tiny stud-like scales. Anterolateral lobe of carapace and hepatic lobes well defined; former elongated as straight conical spine reaching up to middle of adjacent cornea. Gastric area broad, posterior more protuberant. Anterolateral angle of first hepatic lobe spiniform; spine pointing straight forward. Branchial lobe pyramidal, elongated, acutely tipped, well detached from margin of third hepatic lobe and from anterolateral angle of anterior branchial area; with single irregular row of acute scales on outer border. Branchial margins moderately expanded; anterior subdenticulated, posterior finely serrated; denticles on anterior margin short, ill-defined, except anteriormost which is as large as branchial lobe; each denticle carrying 3 to 4 tiny acute scales, mingled with short stiff setae. Dorsum of anterior branchial area flat to slightly concave; posterior branchial area and adjacent marginal cardiac area dome shaped; free border of posterior branchial area recurved and upturned. Anterolateral

angle of second abdominal epimeron spiniform; spine apex scarcely detached from and at level with posterior branchial margin. Lateral angle of third to fifth abdominal epimera spiniform. Fourth thoracic sternum with blunt median tubercle, occasionally carrying 1 or 2 scales on frontal border. Telson longitudinally articulated. Chelae robust; propodus inflated though dorso-ventrally flattened. Dactylar lobe, at proximodorsal end of dactylus, blunt, with 1 to 4 tiny scales in a row along apex. Palmar crest subrectangular or arcuate, moderately expanded, border coarsely dentated; teeth subtriangular, recurved, apices point frontodorsally, especially the most distal. Palmar lobe, just behind dactylus-propodus joint, blunt, low, with acute scales only on frontal edge, its medial scale generally largest; frontal border of palmar crest overhanging palmar lobe, separated by deep notch. Carpal lobe prominent, massive, supporting robust, conical, acute, somewhat recurved spine. Dorsointernal border of carpus, behind carpal lobe, with neat row of 2 to 3 large conical acute spines, decreasing in size towards rear. Carpal ridge as arcuate row of blunt knob-like tubercles topped by minute scale and/or short setae. Carpus ventral face with robust conical spine. Merus of cheliped with row of blunt to spiniform tubercles, distalmost largest; dorsodistal angle of merus tuberculiform, bearing group of short stiff setae, and 2 to 4 scales of which median is largest.

*Color*.—Live, with dorsum of carapace and abdomen olive green; sternal surface and ventral face of pereopods creamy white. Dorsum of pereopods with alternating yellow green and dark green bars. Tip of largest spines pale yellow to creamy, darkening to green at their base. Joints of pereopods bright red, minutely spotted white. In alcohol, carapace and abdomen smoky tan to creamy white.

*Geographic range* (Fig. 3).—Found on the Chol-Chol River basin, from Lumaco to Chol-Chol; also in the Cautín River, in front of Temuco, and in the Quepe River near

Quepe; all these are tributaries of the Imperial River basin which discharge into the Pacific Ocean, at Puerto Saavedra.

*Habitat*.—*Aegla cholchol* is found in medium sized rivers (order 2 to 3, after Strahler, 1957) with coarse gravel and boulder substrates where water current velocity varies between 0.1 to 0.7 m/sec. As a consequence of intensive agricultural activity, the fluvial environment of some stretches of the Chol-Chol River basin have undergone severe alterations; the riparian vegetation, mostly non-native species, is in a heterogeneous state of conservation. At these sites, specimens of *A. cholchol*, new species, were collected on coarse gravel to fine quartzitic micaceous sand, sharing the biotope with *A. spectabilis*.

*Etymology*.—The specific name is derived from the name of the type locality, as a latinized noun used in apposition. It is treated as indeclinable, for the purposes of Article 31b of the International Code of Zoological Nomenclature (International Trust for Zoological Nomenclature 1985).

*Affinities*.—*Aegla cholchol*, new species, *A. rostrata*, and *A. bahamondei* are similar in appearance but the new species is more similar to *A. rostrata* than to *A. bahamondei*. Common to the three species is a wide carapace with expanded branchial areas and denticulated or subdenticulated branchial borders; steep inward downward inclination of the branchiostegal surface; dorsum of anterior branchial area subconcave; well defined branchial lobe; protuberant gastric and cardiac areas with elevated middorsal line but non-keeled as in *A. denticulata*; acute first hepatic angle and anterolateral angle of carapace; ample front and orbital sinuses limited by acute orbital spines, one on the plane of the orbital border and one just below the former, usually not visible from above; narrow, slightly troughed, elongated and conically tipped rostrum. In each of the three species, the appendages, especially the chelipeds, present a basic morphological pattern with proper modifications. The new species differs from *A. rostrata* in hav-



Fig. 3. Map showing the geographical distribution of *Aegla cholchol*, new species. Asterisks indicate localities where specimens were collected. In some cases, asterisk indicates more than one sampling site.

ing: blunt tubercles on the carpal ridge; dorsodistal angle of merus of chelipeds, second, and third pereopods blunt, or at most, with small round tubercle tipped by minute scales and/or setae; dactylar or palmar lobes not spiniform; edge of the anterior branchial area subdenticulated, teeth appressed non spine-like; fourth thoracic sternum with median tubercle. *Aegla cholchol*, new species, differs from *A. bahamondei* by having: epi-branchial lobe monocuspitate; dactylar lobe low and blunt; protogastric prominences little protuberant; tubercle on fourth thoracic sternum acute but non-spiniform; posteroventral edge of merus of second to fourth pereopods smooth, non-denticulated; surface of carapace and chelae with few minute scales.

*Remarks.*—*A. cholchol*, new species, *A. rostrata*, and *A. bahamondei* share a series of complex characters. In particular, a tendency to have every protruding angle of the carapace, abdomen, and appendages, as a pointed conical tubercle or spine. However, the spines and spiniform tubercles are certainly more developed in *A. rostrata* than in *A. cholchol*, new species, and *A. bahamondei*. In the latter, the angles of the carapace are acute but never spiniform. Jara (1986:40) argued that “the trend toward profuse spinulation seems correlated with living in lentic environments.” In this context, both *A. cholchol*, new species, and *A. bahamondei* are restricted to rivers while *A. rostrata* is found mostly in lakes. Jara (1982:237) indicated that “some specimens . . . found in Quepe River near Temuco . . . could prove to be conspecific with . . . [*A. bahamondei*]”. On reexamination, those specimens proved to be *A. cholchol*, new species (IZUA C-008-B, formerly C-328).

*Aegla hueicollensis*, new species

Figs. 4, 5a-i

*Type locality.*—Pichihueicolla River, 0.5 km SE from its outlet into the Pacific Ocean (40°10'S, 73°40'W), on the western slope

of Cordillera Pelada (Coastal Range), Province of Valdivia, Chile.

*Type series.*—Holotype: male (16.5 mm CL), 26 Jan 1983, C. G. Jara coll., IZUA C-245. Allotype: female (16.5 mm CL). Paratypes: 7 males (10.9–19.7 mm LC), 3 females (14.1–14.6 mm LC), 2 juveniles (7.3–7.7 mm LC), same data as holotype.

*Other material.*—3 males (10.7–14.1 mm LC), 3 females (19.3–20.7 mm LC), Chivería, Cordillera Pelada, 40°04'50"S, 73°10'50"W, R. Formas coll., 14 Jan 1971, IZUA C-025. 5 females (12.1–18.1 mm LC), Hueicolla River, 40°08'30"S, 73°37'42"W, R. Formas coll., 1974, IZUA C-026. 14 males (8.9–18.3 mm LC), 7 females (11.7–16.4 mm LC), Amargos Creek, Corral, Valdivia, 39°52'24"S, 72°26'25"W, C. G. Jara coll., 19 Mar 1974, IZUA C-042. 1 male (13.4 mm LC), 3 females (6.8–13.2 mm LC), Trainel River, Lago Huillenco, Chiloé, H. J. Wetzlar coll., 07 Oct 1975, IZUA C-131. 20 males (10.1–24.8 mm LC), 11 females (7.8–21.3 mm LC), San Carlos Creek, San Carlos, Corral, Valdivia, 39°51'40"S, 73°26'25"W, C. G. Jara coll., 20 Mar 1976, IZUA C-175. 9 males (11.7–24.2 mm LC), 4 females (18.3–19.9 mm LC), Chivería, Cordillera Pelada, 40°04'20"S, 73°10'30"W, R. P. Schlatter coll., 21 Jan 1977, IZUA C-184. 3 males (12.3–18.3 mm LC), 9 females (10.9–17.6 mm LC), Hueicolla River, 40°08'30"S, 73°39'05"W, R. P. Schlatter coll., 22 Jan 1977, IZUA C-185. 18 males (10.5–16.8 mm LC), 8 females (10.2–14.6 mm LC), Manzano River, Todos los Santos Lake, Llanquihue, 41°07'20"S, 72°24'50"W, G. Milhe coll., 26 Apr 1974, IZUA C-196. 3 males (11.3–14.6 mm LC), 4 females (11.3–15.9 mm LC), Refugio River, Chiloé, R. P. Schlatter coll., 11 Oct 1977, IZUA C-197. 2 males (8.3–23.6 mm LC), 1 female (26.4 mm LC), Roblental Creek, eastern slope of Cordillera Pelada, 40°16'S, 73°12'W, C. G. Jara coll., 12 Feb 1978, IZUA C-206. 1 male (14.8 mm LC), 3 females (15.7–21.4 mm LC), Pichihueicolla River, 40°09'40"S, 73°39'50"W, C. G. Jara

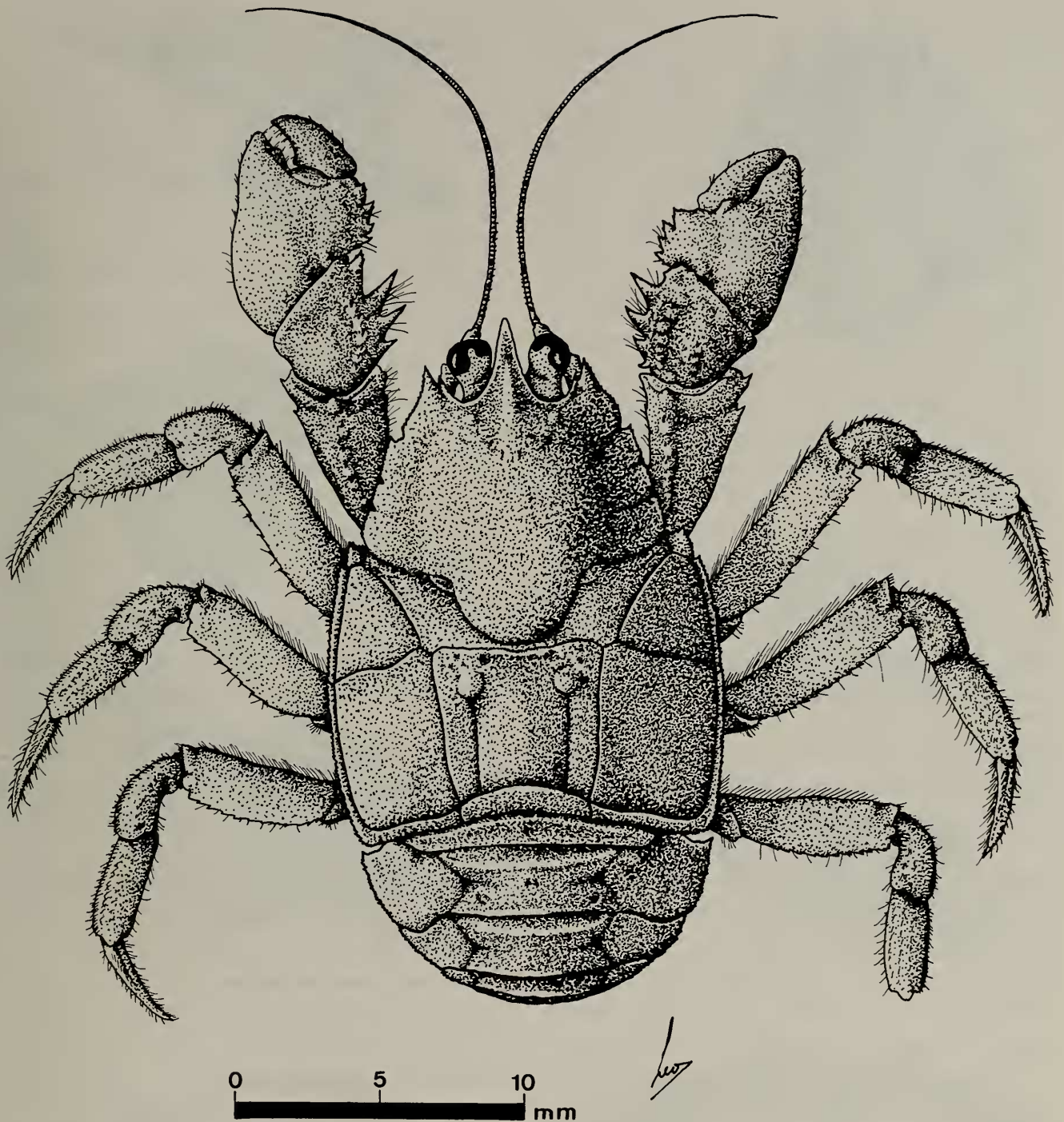


Fig. 4. *Aegla hueicollensis*, new species, male holotype, Pichihueicolla River, IZUA C-245, dorsal view.

coll., 26 Jan 1982, IZUA C-246. 27 males (4.5–15.9 mm LC), 22 females (7.9–17.6 mm LC), Hueicolla River, 40°09'07"S, 73°38'25"W, C. G. Jara coll., 27 Jan 1982, IZUA C-247. 5 males (10.3–19.7 mm LC), 9 females (10.1–22.1 mm LC), Chaihuín River, 40°05'07"S, 73°21'51"W, C. G. Jara coll., 15 Feb 1984, IZUA C-363. 10 males (4.2–27.2 mm LC), 22 females (6.9–26.3 mm LC), Colún River, 40°02'31"S, 73°31'26"W, C. G. Jara coll., 15 Feb 1984,

IZUA C-364. 6 males (7.0–17.2 mm LC), 6 females (8.5–15.1 mm LC), Hueicolla River, 40°08'30"S, 73°31'38"W, H. F. Jara coll, 07 Feb 1992, IZUA C-507. 6 males (9.6–16.7 mm LC), 1 female (13.9 mm LC), Hueicolla River, 40°08'27"S, 73°30'39"W, H. F. Jara coll, 08 Feb 1992, IZUA C-508.

*Diagnosis.*—Carapace ovoidal, not expanded at branchial areas. Epibranchial lobe pyramidal, acute, borders scaly. Ros-



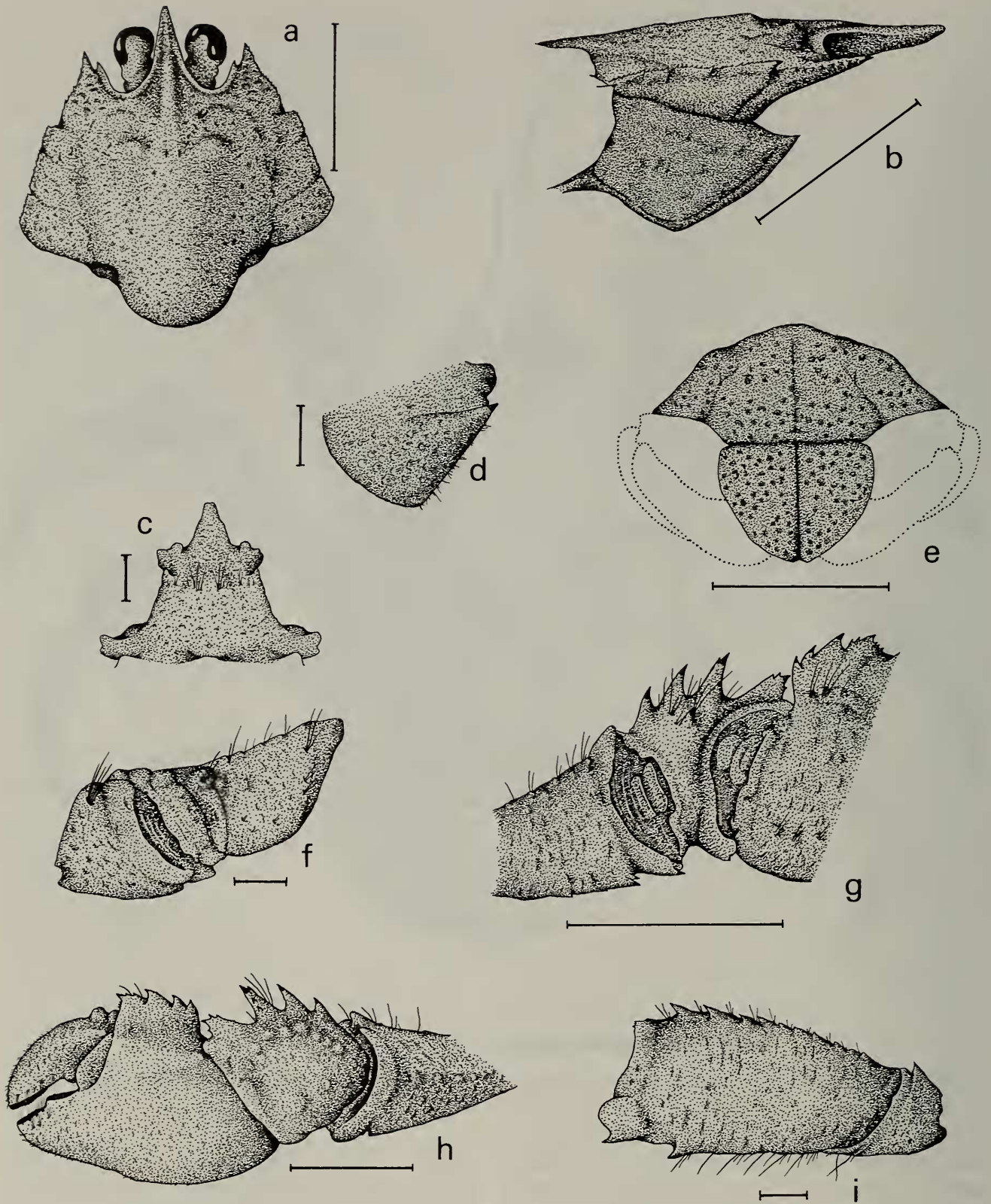


Fig. 5. *Aegla hueicollensis*, new species, male holotype Pichihueicolla River, IZUA C-245; a, anterior part of cephalothorax, dorsal view; b, anterior part of cephalothorax, lateral view; c, third and fourth sterna; d, second abdominal epimeron; e, telson plate; f, ischium of left cheliped, ventral view; g, carpus of left cheliped, ventral view; h, left cheliped, dorsal view; i, merus of cheliped, lateral view. Scales: c, d, f, i = 1 mm; a, b, e, g, h = 5 mm.

trum short, wide at base, neatly triangular, both sides of low-profiled carina barely troughed, conical at apex, acute. First hepatic lobe blunt. Orbital and extraorbital sinus present. Branchial margin smooth, slightly nodulated. Second abdominal epimeron acute but not spiniform. Telson divided. Fourth thoracic sternum smooth. Male chelae elongated, pyriform, inflated at propodus; palmar crest flabelliform, subrectangular, dentate; dactylar lobe subspiniform; carpal lobe spiniform, apex markedly displaced towards distal end of article, frontal edge with row of tufts of short setae mingled with scales; tubercles of carpal ridge blunt, low, topped by transversal row of scales and setae. Tubercles on dorsal edge of merus of chelipeds blunt, tipped by 2 to 4 scales roughly ordered in transversal oblique row. Ventroexternal border of ischium, ventral face of carpus, and ventral borders of chelae with tufts of long setae in row.

*Description.*—Carapace surface finely punctated, each pit with a minute scale and 1 or 2 short stiff setae; highest density of setae on abdominal epimera. Precervical carapace almost as wide as postcervical. Epibranchial lobe pyramidal, acute, its edges lined with short acute stout scales; similar scales along outer borders of carapace except for posterior border and external half of orbital sinus. Rostrum short, wide at base, neatly triangular, barely troughed; low-profiled carina merges into rostrum body at proximal half; rostral apex conical, with stout acute apical scale encircled at base by 3 to 4 minor scales; dorsum of carina with double row of tiny scales proximally, and single unordered row distally; ventral carina not particularly prominent, its deepest point at base. Epigastric prominences nodular, blunt, topped with 3 to 4 scales in transverse row; protogastric prominences barely discernible, marked by small field of button-like scales mingled with stiff setae. Anterolateral lobe of carapace laterally expanded, flattened proximally, its external border slightly sinuose; anterolateral

angle of carapace short, acute, its apex reaching up to proximal third of adjacent cornea. Orbital sinus wide, delimited by an inconstantly present orbital spine; extraorbital sinus variable in depth and width, generally narrowly V-shaped. First hepatic lobe blunt, well separated from base of anterolateral lobe; second and third lobes scarcely defined, separated by shallow notches interrupting marginal row of scales. Branchial margin narrow, smooth, slightly nodulated; posterior slightly upturned. Areola broad, convex, elevated over remaining cardinal area. Thoracic sterna flat; fourth sternum with frontal fringe of long stiff setae; seldom with low, blunt, median tubercle, carrying 1 or 2 scales. Anterolateral angle of second abdominal epimeron acute, dorsum subcarinate behind anterolateral angle; lateroventral face of epimeron deeply concave, profusely covered by short stiff setae; free ventral border with dense row of long plumose setae, also present over posterior branchiostegal surface, edge of remaining abdominal epimera, and borders of uropods and telson. Telson longitudinally articulated.

Males heterochelous; left hand largest. Chelae robust but not particularly massive, subovoidal in outline, surface microtuberculate; each tubercle carrying a minute acute scale and 2 short stiff microsetae, most evident on distal half of propodus and dactylus. Molar process well developed on cutting edge of fixed finger and dactylus of left chela but negligible or absent on right one. Dorsum of dactylus with robust spiniform lobe on proximal end. Ventral face of chelae with prominent ridge along ventroexternal border of propodus, marked by row of pits and tufts of long setae; pits more numerous along dactylus and fixed finger. Base of palmar crest on ventral side of chelae parallel to short tuberculate ridge with large pits and tufts of setae. Central part of ventral face of chelae broadly convex, forming longitudinal ridge between center of propodus-carpus joint and distalmost dactylus-propodus joint, marked by large

pits and setae. Palmar crest prominent, thick, its border denticulated with scattered small acute scales between contiguous larger denticles. Distal end of palmar crest separated from predactylar lobe of carpus by almost right-angled deep notch; predactylar lobe elevated, its free border with irregular row of short acute scales; largest scale at anterodorsal angle. Carpus robust, with two dorsal ridges; outermost lower, distinguishable as slightly arcuate row of broad low tubercles; apex of tubercles with row of 3 to 6 short stiff setae mingled with minute scales; innermost prominent, formed by row of blunt tubercles topped by transverse row of 3 to 5 acute scales and setae. Carpal lobe spiniform, asymmetrically subtriangular, apex leveled with frontal border of same lobe. Inner border of carpus with row of 3 large spines proximally decreasing in size. Dorsum of anteriormost spine with 2 to 3 scales or setae protruding from large pits in a row along spine axis. Same arrangement on minor spines or at least, 1 pit and setae present. Ventral surface of carpus with robust conical spine; between it and inner border of carpus several thick, long, simple setae, uneven in size. Dorsal edge of merus with row of subacute tubercles tipped by 1 or 2 scales, 3 or 4 on distalmost tubercle; frontal side of tubercles with tufts of long simple setae; frontodorsal angle blunt, thick, little prominent, with patch of short stiff setae and scales; ventral borders with row of tubercles tipped with scale and/or seta; distal angles as short conical spine. Dorsal edge of merus of second, third and fourth pereopods with fringe of long plumose setae covering minute spiniform tubercles; carpus, propodus and dactylus with fringe of short stiff simple setae. Posteroventral edge of merus scabrous, subserrated, with narrow band of setae and scales.

*Color*.—Not observed live. In alcohol, carapace, abdomen, and appendages uniformly smoky-tan to creamy white.

*Geographic range* (Fig. 6). Small streams and creeks flowing from east to west on the western slope of Cordillera Pe-

lada (Coastal Range between Corral to the north and the outlet of the Bueno River to the south). Specimens collected are from: Amargos Creek (Corral, Valdivia), Colún, Chaihuín, Hueicolla, and Pichihueicolla rivers. Also found in Manzano River, at Todos Los Santos Lake, in the Andean district of the Llanquihue province.

*Habitat*.—Small rivers and fast flowing streams on moderate to steep slopes, covered or surrounded by cold-temperate Valdivian rain forest. Specimens are found among pebbles and boulders on the stream bottom, at sites where a heterogeneous mass of vegetal detritus accumulates serving as shelter for the crabs.

*Etymology*.—The specific name derives from Hueicolla, a small town on the Pacific coast about 40 km to the south from Corral, where the rivers Hueicolla and Pichihueicolla discharge into the Pacific Ocean.

*Affinities*.—*Aegla hueicollensis*, new species, shares a series of features with other species of *Aegla*. In general, the new species closely resembles *A. abtao*. Several morphological similarities suggest a close ancestral relationship between the two. *A. hueicollensis*, new species, also displays morphological similarity to *A. alacalufi*. Both share the almond-shaped outline of the carapace, the short triangular acute rostrum, and the pronounced distalward displacement of the apex of the carpal lobe. However, *A. alacalufi* has an undivided telson plate, and lacks minute scales on the carapace surface. The new species also shares features with *A. manni* and *A. neuquensis* Schmitt, 1942b, such as: the irregular row of scales and/or setae along the dorsal axis of the larger spines on the inner border of carpus of chelipeds and the transverse row of scales on the tubercles of the carpal ridge of chelae. The new species differs from *A. manni* in having the rostral carina and rostral margins scaly; from *A. neuquensis* by having the anterolateral angle of second abdominal epimeron subspinose. The low, somewhat concave, profile of the rostral carina and the protuberant gastric



area of *A. hueicollensis*, new species, resemble those of *A. conceptionensis*. These similarities led Schmitt (1942b:504) to report specimens of *Aegla* from Corral (northern limit of Cordillera Pelada) as *A. conceptionensis*. Similarly, Haig (1955:504) classified as *A. conceptionensis* specimens from Ancud (230 km to the south of Corral), Chiloé Island. To determine if these specimens are conspecific with *A. hueicollensis*, new species, they would have to be re-examined.

*Remarks.*—The geographic range of *A. hueicollensis*, new species, includes a series of localities on the western slope of the Coastal Cordillera and one locality (Manzano River) on the western slope of the Andes Cordillera, about 100 km southeast of the type locality. There is no hydrological connection between these areas at present. This fact leads to the assumption that, in the past, the geographic range of the new species must have been broader, enclosing localities on the intervening territory between the Andean and the Coastal ranges. Connected to this is the fact that southern Chile, from parallel 38°S southward, was severely affected by Quaternary glaciations. Illies (1960) found evidence that during glaciations the ice-sheet front advanced west from the Andean highlands completely covering the Central Valley; the ice front pushed upon the eastern slope of the Coastal Range but never surmounted it. The western slope of the Coastal Range which was never completely covered by ice (Illies 1960) could have served as a refugial area for *A. hueicollensis*, new species. Its presence in the small Manzano River basin, amid the Andean massif, presumes that somehow the site was unaffected by destructive glacial effects, thus preserving the preexisting population.

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